

# Recovery Plan Action Status

Plan Name: Pondberry

Plan Status: Final

Plan Date: 23-Sep-93

Lead Agency: USFWS

Lead Office: Mississippi Ecological Services Field Office

(601)

965-4900 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Pondberry (Lindera melissifolia)	1	1	Search for new populations	Partially Complete	Prior to FY 1995	FY 2020	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Population Surveys	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Surveys have been funded throughout the species range in previous years. Responsible parties continue to search for new populations as time and resources allow.
Pondberry (Lindera melissifolia)	1	10	Define self-sustaining population and determine required population distribution	Partially Complete	FY 2000 - FY 2004	FY 2010	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	No readily identifiable costs
Pondberry (Lindera melissifolia)	1	11	Conduct hydrological studies	Partially Complete	FY 2000 - FY 2004	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , USFWS Regional Office 3, USFWS Regional Office 4	Research: Habitat Requirements, Research: Habitat Status	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	1	12	Conduct demographic studies	Partially Complete	FY 2000 - FY 2004	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , USFWS Regional Office 3, USFWS Regional Office 4	Research: Demographic Studies	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	1	13	Increase colony vigor	Not Started			U.S. Forest Service, State Conservation Agencies, Department of Defense , USFWS Regional Office 3, USFWS Regional Office 4	Management: Other	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

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Pondberry (Lindera melissifolia)	1	14	Establish buffer zones	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Management: Other	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	No readily identifiable costs
Pondberry (Lindera melissifolia)	1	15	Protect colonies from inappropriate activities	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Management: Land Use, Management: Planning, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	No readily identifiable costs
Pondberry (Lindera melissifolia)	1	16	Protect from herbivores	Obsolete			U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Work type not yet selected	Labor type not yet selected	
Pondberry (Lindera melissifolia)	1	17	Protect genetic resources	Not Started			U.S. Forest Service, Center for Plant Conservation, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Genetics, Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Genetic stock from several Mississippi Delta region populations are being maintained in cell cultures. Initial efforts to transfer this genetic material are being coordinated with CPC, USFS, and FWS. Future efforts should also be coordinated through CPC.

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Pondberry (Lindera melissifolia)	2	18	Study dispersal mechanisms	Partially Complete	FY 2000 - FY 2004	FY 2010	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	2	19	Study seed predation	Partially Complete	FY 2000 - FY 2004	FY 2010	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	1	2	Protect private populations	Ongoing Current	Prior to FY 1995	FY 2020	The Nature Conservancy, State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Acquisition: Easement, Acquisition: Exchange, Acquisition: Fee Title, Acquisition: General, Acquisition: Lease, Acquisition: Management Agreement, Management: Land Use, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	
Pondberry (Lindera melissifolia)	2	20	Define individuals	Partially Complete	FY 2000 - FY 2004	FY 2023	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	

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Pondberry ( <i>Lindera melissifolia</i> )	2	21	Study asexual reproduction	Partially Complete	Prior to FY 1995	FY 2010	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry ( <i>Lindera melissifolia</i> )	2	22	Develop substrate disturbance techniques	Partially Complete	FY 2000 - FY 2004	FY 2010	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry ( <i>Lindera melissifolia</i> )	2	23	Monitor colony buffer zones	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Demographic Studies, Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	No readily identifiable costs

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Pondberry (Lindera melissifolia)	2	24	Monitor populations	Ongoing Current	FY 2000 - FY 2004		U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Monitoring of populations varies by state. Current monitoring data was not available for most states. Informal monitoring of an AL population indicates that the plants are stable. Monitoring of AR populations was conducted at the end of FY 2010 and beginning of FY 2011, with one population not relocated and another relocated and apparently increasing; additional monitoring of AR populations in FY 2012 is planned.
Pondberry (Lindera melissifolia)	3	25	Identify and rank reintroduction sites	Not Started			U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Reintroduction	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert	Tasks 5.1 through 5.4 will be undertaken only if reintroduction is found to be essential for the successful recovery of the species; in which case, the task priority will increase to 1
Pondberry (Lindera melissifolia)	3	26	Reintroduce the species	Not Started			U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Reintroduction	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	necessity of task to be assessed later

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Pondberry (Lindera melissifolia)	3	27	Manage reestablished sites	Not Started			U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Management: Reintroduction	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	3	28	Monitor reestablished sites	Not Started			U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Reintroduction	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	3	29	Implement public education program	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Fish and Wildlife Service, Public Affairs, State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Other: Information and Education	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	1	3	Protect public populations	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Acquisition: Easement, Acquisition: General, Acquisition: Management Agreement, Management: Land Use, Management: Planning, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Internal Administrative, Internal Field Assistance, Internal Technical Assistance	

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Pondberry ( <i>Lindera melissifolia</i> )	3	30	Designate lead office and part-time coordinator	Partially Complete	Prior to FY 1995	FY 2020	U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Management: General	Internal Administrative	Lead office designated, no separate coordinator position established or anticipated in future
Pondberry ( <i>Lindera melissifolia</i> )	1	4	Prevent loss of habitat	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Soil Conservation Service, Department of Defense, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Acquisition: Easement, Acquisition: Exchange, Acquisition: Fee Title, Acquisition: Lease, Acquisition: Management Agreement, Management: Land Use, Management: Planning, Other: Information and Education, Other: Law Enforcement, Other: Regulations	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry ( <i>Lindera melissifolia</i> )	1	5	Study reproductive biology	Ongoing Current	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Initial studies on the reproductive biology of pondberry have been completed in previous FYs. Current research is ongoing, particularly in the Mississippi Delta.
Pondberry ( <i>Lindera melissifolia</i> )	1	6	Study germination	Partially Complete	Prior to FY 1995	FY 2010	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry ( <i>Lindera melissifolia</i> )	1	7	Study seedling ecology	Partially Complete	Prior to FY 1995	FY 2020	State Conservation Agencies, U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Should be combined with Tasks 2.2.1, 2.2.3 and 2.2.4

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Pondberry (Lindera melissifolia)	1	8	Identify sexually reproducing colonies	Partially Complete	Prior to FY 1995	FY 2020	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Other Information	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	
Pondberry (Lindera melissifolia)	1	9	Determine genetic variability	Partially Complete	FY 1995 - FY 1999	FY 2010	U.S. Forest Service, State Conservation Agencies, Department of Defense , U.S. Fish and Wildlife Service, Office of Endangered Species, USFWS Regional Office 3, USFWS Regional Office 4	Research: Genetics	Contract, Graduate Student, Internal Administrative, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Initial genetic work has been performed in previous FYs. Genetic investigations are ongoing.